Teacher-Candidates' Perceptions of Schools as Professional Communities of Inquiry: A Mixed-Methods Investigation

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Abstract

In North American teacher education programs, preservice students typically complete a substantial proportion of time practice teaching in schools, experiencing the extent to which professional school communities of inquiry contribute toward improving teaching and learning. Although there is extensive research about the experiences of new teachers, there is far less attention on preservice teachers' perceptions of schools as professional communities of inquiry. The purpose of this mixed-methods research was to compare teacher-candidates' expectations prior to the practice-teaching placements with their observations following the practice-teaching experience. More specifically, the objective of this paper was to determine the effect of the student-teacher practicum experience on prospective teachers' beliefs about schools as communities of inquiry to improve teaching and learning. Of major significance, participants' perceptions following their preservice training were significantly lower than their expectations prior to the field placements.

Introduction

The importance of effective and purposeful school organization has been extensively documented in the literature (Gottfredson, Gottfredson, Payne, & Gottfredson, 2003; Welsch, 2000). School organizations that are defined by communities of professional practice and collaboration encourage their members to partake in knowledge-creation (Hara, 2001; Wenger, 1998; Zhu & Baylen, 2005). The manner in which schools are organized influences the collective actions of their constituents since the work of educators extends beyond the classroom (Ingram & Smith, 1993; Williams, 2005; Young, 2000). School organization consists of various networks of aligning systems that impact strategic and managerial concerns (Morgan, 2006). Formal school organizations, therefore, establish the goals and boundaries of human activity (Aldrich & Ruef, 2006).

Schools that function as professional communities of inquiry include teachers and administrators who are committed to shared learning practices. The objective of their individual and collaborative endeavors is to improve their effectiveness as professional educators to further improve student learning (Fullan, 2003; Hargreaves & Fink, 2006; Hord, 1997; Mitchell & Sackney, 2000). Under the construct of professional learning communities, all educators are commissioned to continuous inquiry to improve teaching and learning (Westheimer, 1999). Further, learning communities are distinguished by their professional approach to teaching and learning and by their principle-driven decision-making protocols (DuFour & Eaker, 1998; Hargreaves & Stone-Johnson, 2004). Embedded in their organizational principles is a culture of trust, professional inquiry, and proven resolve to further student learning (Anderson & Togneri, 2002; Bryk & Schneider, 2004; Evans, 1996; Fielding, 2001; Hargreaves & Stone-Johnson, 2004; Westheimer, 1999). Schools as professional communities of inquiry recognize the importance of extending supplementary support to novice teachers in contrast to school organizations that do not adequately sustain collaborative and meaningful action (Lipshitz, Friedman, & Popper, 2007).

As a major component of their teacher training programs, preservice teachers complete a substantial proportion of time practice teaching in schools (in Ontario, Canada, for example, the teacher practicum ranges from 10 to 12 weeks). Prospective teachers are immersed in the norms, values, and

social relationships of various schools, as these experiences contribute toward their professional trajectory (Bryk & Driscoll, 1988; Lee, Bryk, & Smith, 1993). Critical to school organizational environments is their potential as professional communities of inquiry to sustain constructive dialogue and collaborative problem solving. In this context, dialogue serves as the vehicle to interrogate the systemic processes of inquiry and learning (Bohm, 1990; Senge, Kleiner, Roberts, Ross, & Smith, 1994). The processes demand forums for professional dialogue founded upon mutual trust and professional cooperation (Harris, 2002). Student teachers experience firsthand the formal and informal operations and processes of professional and collaborative communities of inquiry and the extent to which they make a valuable contribution toward improving teaching and learning in schools (Johnson & Johnson, 1998; Lieberman, 1996; Marshall, Pritchard, & Gunderson, 2004; Oplatka, 2004).

Purpose of the Study

Preservice teacher-candidates are exposed to varying professional school communities throughout their formal teacher training. While it is true that the literature is rich in scholarship into the problematic experiences of beginning teachers (Bullough, 1992; Calderhead & Robson, 1991; Cherubini, 2008), drastically less research has been conducted on teacher-education students in terms of their initial experiences and perceptions while in the field (Menon & Christou, 2002). Research confirms that beginning teachers' experiences are profoundly affected by the perceptions garnered throughout their practicum placements and that these perceptions translate into expectations as their careers evolve (Bandura, 1997; Menon & Christou, 2002).

This research was conceptualized around a central question: What are teacher-candidates' expectations about schools as professional communities of inquiry to improve teaching and learning prior to their field teaching placements when compared to their perceptions subsequent to having been immersed in the field? The conceptual gap between teacher-candidates' expectations and perceptions can contribute toward a cognitive dissonance with their professional role and to their eventually abandoning the profession (Murmane, Singer, Willet, Kemple, & Olsen, 1991). This study employed a mixed-methods research design to investigate the effect of the student-teacher practicum experience on prospective teachers' impressions about schools as professional communities of inquiry. The presurvey served to attune participants to the significant components of schools as communities of inquiry, while the postsurvey tracked the emergence of the relevant configurations in their extended experiences in the classrooms (Roth, 2005). By focusing on student teachers' expectations and observed realities, the process of becoming a professional teacher may also be better understood (Guillaume & Rudney, 1993; Swennen, Jorg, & Korthagen, 2004).

Methods

The study's mixed-methods research design utilized quantitative and qualitative means to arrive at an in-depth understanding of the research predicament (Creswell & Plano-Clark, 2007; Elliot, 2005; Tashakkori & Teddlie, 2003). This study represents one component of a larger-scale research endeavor.

Participants

Preservice students enrolled in a 1-year postgraduate bachelor of education teacher-preparation program from a mid-sized Canadian university in southwestern Ontario were invited to participate in this study. For the sake of clarification, education is a provincial responsibility in Canada and, aside from First Nations Education, does not rest within a broader federal jurisdiction. The bachelor of education degree is earned in this case as a second degree and is a 1-year program of study. In this program, students choose a specialist area in one of the primary/junior (p/j) or intermediate/senior (i/s) teaching divisions. The p/j program leads to certification to teach grades 1 to 6; the i/s program leads to certification to teach grades 7 to 12. Seventy-five students accepted the invitation (from the 145 originally enlisted), representing a 52% response rate. One percent of the responses were discarded during the preliminary vetting due to response prevarication. In self-reported measurement indicators,

63% of participants were female and 17% male (20% did not respond); 51% were enrolled in the i/s qualification program and 41% in the p/j divisional qualifications (8% did not respond); 65% belonged to the 20–29 age bracket, 11% to the 30–39 age category, and 13% indicated that they were 40 years of age or older (the remaining 11% did not respond).

Procedure

The triangulation design of this mixed-methods research compared participant responses from the quantitative items with their more detailed qualitative written entries. It involved the concurrent but distinct collection and analysis of both quantitative and qualitative data (of equal weighting) prior to the merging of the two properties of data during the interpretation process (Creswell et al., 2003; Hanson et al., 2005). On a basis of a Likert-type scale ranging from strongly disagree to strongly agree, participants recorded their expectations of schools as professional communities of inquiry before their initial practicum experience at the onset of the academic year and then ranked the same items after their final teaching practicum at the conclusion of their preservice teacher-education program. Each of the six statements began with, *During my interning and practice-teaching in schools, I expect that....* The statements were scripted as follows:

- Staff meetings will be professional gatherings that focus upon student learning.
- Teacher professional development will be a high priority in the school community.
- Department (or division) meetings will be conducted in a professional manner and will focus upon improving student learning.
- Teachers will ensure that they competently address the individual learning needs of all exceptional students.
- Teachers will involve students' parents in creating positive learning experiences within the school community.
- Teachers will demonstrate a professional responsibility within the school community to ensure that students have opportunities to be successful according to their unique capabilities.

In the qualitative section of the presurvey, participants commented on their expectation that school organization will be conducive to collaborative and professional communities of inquiry (see Cherubini, in press). Specifically, the two prompts were stated as follows:

- Schools will be organized so that both new and experienced teachers have opportunities to fulfill their own vision and beliefs. Explain why you either agree or disagree with this statement.
- Do you expect administrators and teachers (regardless of their years of experience in teaching) to work collaboratively to improve student learning. Explain in detail. If not, explain why.

The postsurvey invited participants' qualitative and descriptive explanations to the following prompt:

• Describe examples of how collaboration was embedded in the routines and practices of schools to improve student learning. Or, explain why you believe collaboration was not embedded in the routines and practices of schools to improve student learning.

Both the presurveys and postsurveys were administered at the conclusion of scheduled class time with minimal disruption to coursework. In advance of the survey distribution, course instructors were provided with a description of the study and the instructions to share with those students who chose to participate. The quantitative and qualitative sections of the survey were previously field-tested under similar circumstances with different samples of preservice student cohorts for the sake of instrument fidelity (Onwuegbuzie, Witcher, Colllins, Filer, Wiedmaier, & Moore, 2007). Peer debriefing sessions were conducted after each field test for external evaluation (Glesne & Peshkin, 1992; Maxwell, 2005;

Merriam, 1998; Newman & Benz, 1998). In terms of validation, a mixed-methods research design provided a more descriptive analysis of preservice teachers' expectations and perceptions of schools as professional communities of inquiry. A colleague with extensive experience in mixed-methods designs, but who did not have a vested interest in the study, constructively criticized the findings as they emerged (Lincoln & Guba, 1985). The open-ended qualitative questions provided opportunities for participants to elaborate upon their responses from the Likert-type items. Sample integration accounted for the inferences as they emerged in the coding and analysis stages (Onwuegbuzie & Johnson, 2006; Tashakkori & Teddlie, 2006).

Data Analysis

The six statement responses were quantitatively analyzed in terms of means and frequencies before being subjected to t tests to factor significant differences. The findings of the quantitative analyses are tabled in the Results section of this paper. The quantitative responses were then analyzed on multiple comparisons based on participants' self-reported age, gender, and divisional qualifications.

The open-ended qualitative responses were inputted into Ethnograph software to identify relevant patterns. Grounded theory (Glaser & Strauss, 1967), as a qualitative analytical mode of analysis, facilitated the coding of the respective patterns into emerging themes as they were grounded in the data (Strauss & Corbin, 1990). The process of constant comparison saturated the conceptual relationships into the respective categories (Glaser, 1978; 1992). The qualitative data were combined and inductively analyzed using a cross-section of variables including age, gender, and divisional qualifications.

Results

In accordance with mixed-methods tradition, the results for each of the variables from both the quantitative and qualitative analyses are presented respectively (Creswell & Plano Clark, 2007). The underlying finding of the study was that student teachers' experiences during their teaching-practicum assignments had a unanimously negative effect upon their beliefs of schools as professional communities of inquiry to improve teaching and learning.

Quantitative Data: A Ranking of Descriptive Means

In terms of the Likert-scale quantitative responses, the descriptive means for each of the six statements were lower in the postsurvey than they were in the first administration of the survey. Most importantly, the preservice candidate participants had higher expectations of schools as professional communities of inquiry prior to their student-teaching practicum than they reported following the practicum experience. Table 1 includes a presentation of the means obtained pre- and postpracticum.

Table 1

Descriptive Means for Items Related to Schools as Professional Communities of Inquiry to Improve Teaching and Learning

Responses	N	Premean	SD	N	Postmean	SD
Staff meetings as professional gatherings that focus on learning	75	4.15	.828	75	4.12	.86
Teacher professional development as a high priority in school community	75	4.05	.820	75	3.76	.89
Department (or division) meetings conducted in a professional manner and focus on learning	75	4.08	.850	75	4.06	.990

Table 1 (continued)

Responses	N	Premean	SD	N	Postmean	SD
Teachers ensure that individual student learning needs are addressed	75	4.31	.870	75	3.62	1.07
Teachers involvement of students' parents to creative positive learning experiences for students in community	75	4.03	.972	75	3.73	.843
Teachers demonstrate a professional responsibility to ensure opportunities for success	75	4.05	.899	75	4.01	.98

N: Number of Participants; SD: Standard Deviation

The greatest difference between mean scores was in relation to teachers addressing the unique learning needs of exceptional students within the school community. Teachers' willingness to involve parents in creating positive learning opportunities also demonstrated a notable contrast between teacher candidates' expectations and perceptions following the practicum experience. Also of note are that study participants' expectations of teachers' professional development being a top priority in the school community was also represented as a lower score on the postteaching experience observations. The other three differences, though reported to be less different between pre- and postpracticum assessments, reflected the overarching pattern of preservice candidates' expectations as being lower following the practicum experience than they were when assessed before the practicum experience.

Significant Differences: Two-Tailed t Tests

When the data were subjected to two-tailed t tests at an alpha of .05, a statistically significant difference was found in three of the six responses, with one more t-test result approaching significance (see Table 2). Consistent with the paired sample statistics, teachers' attention to addressing the unique learning exceptionalities of students in professional collaborative learning communities represented the most statistically significant difference (p = .000). Significant differences were also noted with participants' observations of school organizations committed to professional teacher development (p = .009) and to teachers' capacity to involve parents in creating positive learning experiences for students within the school community (p = .038). The least difference reported was in participants' expectations and observed realities of department or division meetings as professional gatherings focused upon student learning (p = .924).

Table 2Paired Samples Test

Items	Mean	SD	SE Mean	T	Significant Difference (2-tailed)
Pair 1 meetings; meetings 2	.02740	1.06683	.12486	.219	.827
Pair 2 professional development; professional development 2	.29333	.94115	.10867	2.699	.009

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Items	Mean	SD	SE Mean	T	Significant Difference (2-tailed)
Pair 3 student learning; student learning 2	.01333	1.21359	.14013	.095	.924
Pair 4 learning needs; learning needs 2	.68000	1.24293	.14352	4.738	.000
Pair 5 positive learning; positive learning 2	.29333	1.20554	.13920	2.107	.038
Pair 6 professional responsibility; professional responsibility 2	.04000	1.30943	.15120	.265	.792

T: t Test; SD: Standard Deviation; SE: Standard Error

The reported results are not an indictment on any of the participating schools and school boards since the 75 participants were assigned to numerous elementary-, middle-, and secondary schools dispersed across a vast geographical region in Ontario.

Independent t Test Comparisons

It was also decided to examine the differences across the surveys in terms of participants' age, gender, and divisional qualifications; as a result, independent t tests were conducted. Of note, the 22–25 and the 40+ cohorts reported significant differences in their expectations and eventual observations of professional development as being a priority for the learning communities to which teachers belonged (as shown in Table 3). Independent t tests of multiple comparisons based on gender were also conducted. There were no statistically significant differences.

 Table 3

 Multiple Comparisons: Age and Divisional Qualifications

Responses	Age	Age	Mean Difference	Significant Difference
Professional development as priority	22–29	40+	.674	.016
Responses	Divisional Qualification	Divisional Qualification	Mean Difference	Significant Difference
Professional development as priority	p/j	i/s	.739	.021
Professional responsibility for student learning and success	p/j	i/s	.708	.031

Significant differences were also found through a multiple comparison of t tests based on participants' divisional qualifications. Two statistically significant differences emerged. In the first instance, the p/j teacher-qualification cohort differed significantly with the i/s preservice candidates in terms of professional development being a priority for schools as learning communities. In the second instance, as compared to the i/s sample, the p/j sample reported a higher frequency of teachers' demonstration of a professional responsibility to ensure all students achieve success according to their unique capacities.

Qualitative Data: A Grounded Theory Analysis

For both the presurveys and postsurveys, the respective responses to the qualitative open-ended questions were inductively analyzed using grounded theory analysis (Cherubini, 2007). The written entries were independently coded according to the same variables employed in the quantitative analyses; those being, age, gender, and divisional qualifications.

Variable 1: Age

The 22–29 cohort responses for the first question in the first survey were coded and saturated into a core category; namely, participants' high expectation that professional autonomy will exist in each school but that one's personal vision must conform to school and principal paradigms. The responses were typical of the following: "I would hope that we are able to work within the greater structure;" "Teachers' visions and beliefs should be fulfilled as long as they are within the curriculum." Throughout the transcripts, new teachers were distinguished as the teacher population that needed to feel particularly affirmed that their vision was pertinent to the school and school organization. As one participant stated, an affirming and collegial school infrastructure is "especially important for beginning teachers who may not have completed their ideas for what their vision and beliefs are." In the majority of responses, participants qualified that personal vision must "comply with the school's mission statement and policies." "Individual core beliefs," as another participant stated, "are critical in teachers' professional development," but qualified in the same sentence, "as long as those beliefs coincide with the values of the school." Some of the prospective teachers in the study reflected the view that, "teachers should be able to fulfill their own needs and thoughts, but they should never go against what schools expect or believe."

The second presurvey question response data were also saturated into a core category identified as teachers considered to be integral to faculty team and a vital part of the communication between administrators and students. The expectation existed that school administrators and all teacher colleagues would, as these participants attested to, "help each other and share resources," "meet regularly to discuss student progress and provide information in confidence that will help student learning," "discuss how to guide positive behavior and how to modify lessons," and "work together in an environment where communication, integrity, and respect are modeled." The expectation was for "meetings [to] be scheduled regarding at-risk students to identify needs and possible solutions" since they believed that "everyone's opinion matters" given the expectation that teachers and administrators "are all on the same team and share the same goals." Consistently throughout the data, the 22–29 cohort underscored the fact that they did not expect their inexperience as young professional teachers to be a factor for discrimination since "just because they [older and more experienced teachers] are experienced doesn't mean they know everything."

For the 22–29 cohort emerging from the second survey at the conclusion of the academic year, the core category relating to the nature of collaboration as it was embedded in school practices to improve student learning was described as *managerial routines and resource-sharing*. Participants commented on the lack of professional collaboration among teachers, support staff (educational assistants), and school administrators. One individual noted, "It was not embedded because there was not teamwork." In the majority of cases where collaboration was observed, it consisted of "teachers working together on the

music trips," "sharing [supervision] duties," "sharing a lot of their resources," "reinforcing routines and ideas in the school," and collaboratively "preparing for the prayer services." The fact that colleagues "worked together" in these capacities was nevertheless noticed by the study participants.

The 30–39 cohort responses to the first presurvey question were saturated into the core category described as *the vision of school administration takes priority over individual teacher beliefs and perceptions*. Representative of this category were comments that included, "You are required to follow school protocol, and this makes it difficult to follow your beliefs if they differ from the schools;" "Usually the principal sets the tone and tries to fulfill his or her vision and beliefs;" and "There may be some room for personal interpretation and expression for teachers, but it is within a collective vision."

The responses to the second presurvey question represented a concerted expectation that collaboration would manifest in schools as strong support networks. The core category emerged as *networks to enable students to achieve and reach their potential*. Participants anticipated that all teachers and administrators "should have the best interests of the students at heart," and that "collaboration means teachers helping students as a result of regular discussion in department meetings." In the bulk of responses it was indicated, as one individual stated, that "administrators and teachers work hard together." Participants in this cohort expected that the common mandate for all educators is to "work together for students ... supporting each other."

Considerably different were the responses in the postsurvey. The core category that saturated the respective codes and properties was described as *collaboration as being a nonembedded process and resigned to the initiative of individual teachers*. Teachers were perceived to be "too hands-off" in terms of becoming involved in school initiatives to improve student learning, and, as a result, professional collegiality was often "not embedded in the school programs at all." Participants were candid in describing "teachers talking about students and sharing resources, but there was no discussion of how to improve student learning." Typical of the responses was this participant's who stated, teachers "did their own thing."

For the first question on the presurvey, the core category for the 40+ participant cohort was cautionary optimism. Participants expected to facilitate their visions but had their reservations that this was going to be possible. Participants anticipated that the school community as a whole would "benefit from the visions and beliefs of others," and looked forward to situations to exercise "the freedom to live out those visions and beliefs." They openly questioned, however, "how this can be accomplished" and wondered if such opportunities "will likely be few and very limited." The core category emerging from the second presurvey question represented participants' distinguished appreciation and expectation for school administrators to facilitate professional collaboration. Consistently, participants positioned the onus on school administrators to, as this participant suggested, "consult with the teachers in building programs that meet the needs of the students and improve their learning." This cohort of participants clearly delineated individual school roles according to hierarchy and formally identified positions of additional responsibility. Indicative of other responses, one individual stated that the principals of the schools need to "set schedules and share resources and teaching strategies for specific students," as well as establishing as this participant described, "an information base upon which to understand and influence student needs."

The properties and themes from the postsurvey question that saturated this cohort's responses into a core category captured an alternate reality of professional collaboration. The core category, identified as *collaboration limited to colleagues assisting one another with daily management routines*, was based on observations that saw teachers "suggesting crafts that would be appropriate for various activities," teachers "helping one another in the primary wing of the school," and staff "coordinating community learning days."

Variable 2: Gender

When subjected to gender comparisons, there emerged noteworthy similarities between presurvey and postsurvey responses. In response to the first question of the presurvey, female participants acknowledged both the ideal and what they expected to be more realistic perspectives of being able to fulfill their

visions and beliefs (core category). While they anticipated, as one participant stated, to "implement their own vision," another individual's response was equally typical in suggesting that "it greatly depends on the support that new teachers receive from the experienced staff."

The core category representing the male responses was bewildering. It recognized the import of having a personal and meaningful philosophical paradigm from which to operate, but conceded that the infrastructure of contemporary schooling may not be conducive to facilitating this possibility. The category was identified as *recognition of the importance of fulfilling personal vision, but an expectation that school organization may not allow for it*. Male participants said that they "agreed it [having opportunities to fulfill one's visions and beliefs] should happen, but certain visions and beliefs may cause problems with other teachers or students." While they acknowledged the importance of giving "teachers space," they also expected that personal autonomy will be "kept in check" by the school administration.

The core category belonging to the second question focused on the significance female participants attributed to open communication between educators. It was identified as the expectation that collaboration will be a continuous conversation and constructive dialogue between teachers, administrators, parents, and students. Participants in this cohort expected to "observe [other teachers'] lessons," be invited to strategic meetings "to reflect and talk about our teaching skills," and "get together to share experiences, get feedback, and demonstrate understanding and improvement in what we are doing."

The core category that emerged for the male cohort was an *anticipation of collaboration as being a complex and tenuous process*. Male prospective teachers "expected teachers to share stories, resources, and experiences," but many of the others suggested, "It will depend on the school's collective attitude if this actually happens because if experienced teachers are not on board, then it's not going anywhere." These participants' reflections were quite typical of the majority: "I expect that teachers will work collaboratively in all aspects of student learning, but personality conflicts will always exist," and "I would expect administrators and teachers to work collaboratively to improve student learning; however... both administrators and teachers are extremely busy and have their own goals to achieve."

Female participant responses to the postsurvey question were similar to that of the 30–39 and the 40+ groups. The core category was identified as *collaboration as a product of same grade/division/department teachers when it existed.* Consistently, throughout the responses were examples of teachers "from the same grade planning collaboratively," and "team teaching" scenarios. Common in the majority of responses was this one: "Teachers talked about a student and tried to share resources, but there was no discussion of how to improve the student's learning."

The core category for male responses to the postsurvey question was also similar: *Collaboration was a product of same grade/division/department teachers when it existed*. Some cited the "monthly staff meetings where topics were introduced... [teachers] came up with ideas as a whole group." Others cited the objectives of specific departments who strove to "ensure that all courses were taught roughly the same way."

Variable 3: Divisional Qualifications

The core category that represented the i/s cohort responses to the first question on the presurvey was described as participants expected that respect and tolerance for professional autonomy will exist under the condition that they are aligned to the principal's vision. Common to the majority of responses were those that included the expectation that schools "should be open to new ideas and innovations," but personal visions and beliefs must conform and be "incorporated into the framework of the entire school." Though participants acknowledged the importance of teachers' individual vision, they were also cognizant of the "principal's vision as the one that lights the way."

The core category representing the p/j division cohort was similar but included a novel slant: *New teachers' visions can be valuable for the contribution they make to the school, but personal beliefs have to be tightly aligned to principals' visions.* Participants stated that "this is necessary for me as a new teacher to be able to do what I believe in, but I don't think it will be the case if the principal's opinions are different." They were adamant in asserting that "new and experienced teachers can learn from each

other," but, by the same token, agreed that personal beliefs "reflect and coincide with the principal and vice principal's ideas."

The core category representing the i/s responses to the second presurvey question was notable. The category was described as *school organization will facilitate collaboration, but reservations exist regarding the commitment from experienced teachers*. Reminiscent of the other reflections, one participant wrote that "all teachers should collaborate, but they likely won't given human nature." Others recorded that teachers "should collaborate, but realistically it won't happen because too many people will be involved and this will make it hard for everyone to get on the same page." The p/j cohort's core category, unlike the other variables in these cross-section analyses, identified particular components of school programming considerations that address authentic student learning. In their responses, they distinguished collaborative opportunities that will entail "discussions on modifying lessons," "offering counseling on one-on-one teaching tips," "ways to better organize my classroom for certain kids," and "building programs that meet the needs of the students."

The core category for the i/s cohort responses to the postsurvey question was identified as endeavours to strengthen authentic student learning were not visibly evident. Participants noted that secondary school departments "acted as though they were their own country. There was no collaboration between departments or administration." Others thought that they "didn't observe any collaboration in terms of moving kids' learning forward. Everyone did their own thing." This was comparable to the p/j core category of collaboration in schools perceived as informal and haphazard. Although in a number of responses it was observed that discussion between same-grade and division teachers "took place to make sure they were on the same page," and in "staff room conversations," teachers were more often perceived as "very isolated" and functioned in school environments where there "was not a lot of communication [since] no one was ever in the division workrooms."

Discussion

Prospective teachers' perceptions serve as meaningful gauges of schools as professional communities of inquiry (Gorton, Alston, & Snowden, 2007). The results of the study, both the statistically significant differences and the saturated qualitative core categories, clearly indicate that preservice teacher expectations about schools as professional communities of inquiry to improve teaching and learning were unanimously higher before the practicum experience than following the practicum experience; thus, the practice-teaching experience strongly influenced participants' perceptions. These perceptions about the professional learning environments of schools may impact participants' outcomes during their induction into teaching (Western Michigan University Evaluation Center, 2005).

The results of this research have noteworthy implications. Participants in both the quantitative and the qualitative component reported differences between their expectations and perceptions of the various characteristics of learning organizations under study; namely, schools that facilitate optimal learning opportunities for all students, faculties that consider learning as the vehicle to address goals, and schools that encourage inquiry and open communication between all voices in the community (Calvert, Mobley, & Marshall, 1994; Daft & Marcic, 1998; Pegal, 1998; Watkins & Marsick, 1993). Participants readily shared that while their experiences in the schools throughout the teaching practicum exposed them to dedicated learning-centered classroom teachers, the focus on teaching and learning in a social context was significantly less than what they anticipated prior to their student-teacher placements.

Participants reported the greatest disconnect to be between their expectations and eventual observations in the area of teachers competently addressing the individual learning needs of all exceptional students. The notion of collective learning on the part of school faculties' intent on being proactive in addressing students' unique needs (as described in Hord, 1997) was under-represented according to participants' perceptions. Participants expected students' individual needs as "diverse learners and problem solvers," as one participant shared, to be addressed with direct and specific

instructional strategies that resulted from "a lot of schoolwide discussion." They anticipated classroom learning cultures that, as one individual stated, "programmed kids for success regardless of their abilities" and that were supported by school communities that sustained instructional environments nurturing the range of students' skills. The observed realities in the schools, given the criteria of professional communities of inquiry, lacked the strong congruence of "sense making" that accounts for purposeful instruction and improved student achievement (Gorton et al., 2007; Reilly & DiAngelo, 1990). This poses a further concern in terms of the research on academically effective schools that underpin the importance of schoolwide procedures and expectations on academic effort and accomplishment (Purkey & Degen, 1985).

A second disconnect existed in the area of participants' perceptions of parents being involved in creating positive learning experiences for students within the school community. This too has serious implications for effective schools as communities of inquiry since research tells us that all school stakeholders, primarily parents, should have opportunities to enact their broad influence on learningimprovement initiatives (Foster, 2004; Smylie, Conley, & Marks, 2002). In their postsurvey qualitative responses, participants noted on numerous occasions how "resistant some teachers are to inviting parents into their classroom," and how, as another prospective teacher wrote, "A lot of teachers seem kind of intimidated by parents even if they are just coming in to watch a talent show or something like that." The baseline profile of the quantitative and qualitative responses suggested participants' expectations that parents and the outreach community were critical partners in the teaching and learning process. As reported both statistically and conceptually, the prospective teachers in this study expected teachers to encourage students' parents in establishing partnerships and core action teams. These expectations complement the research that infers the positive outcomes of schools' use of family involvement to improve student performance (Epstein & Sheldon, 2002; Sheldon & Epstein, 2003; 2005). Parents' attendance at school events foster open communication with teachers and is positively related to student achievement (Desimone, 1999; Hill & Craft, 2003). Of further significance, English language learners (ELLs) experience sustained long-term gains in their schooling (Epstein, 1992), as do children from lower- and middle-income populations (Hidalgo, Bright, Sui, Swap, & Epstein, 1995; Robledo Montecel, 1993). Participants' experiences in this study reflected a more disjointed version of parental collaboration within school communities and a far cry from the home-school networks that improve achievement (Reynolds, 1991).

The fact that teacher professional development was not perceived to be a priority in schools as professional communities of inquiry represents a third finding worthy of discussion. In preteaching practicum reflections, participants noted their expectation that professional development was interconnected with improving teaching practice to improve student learning. As one participant expressed, "I would expect the school community to be the greatest advocate of teachers advancing themselves in their professional development." Prospective teachers considered schools, as professional communities of inquiry, to assist teachers in relating their needs to the professional development opportunities that exist. Another participant's entry was candidly forceful and represented many others: "We are professionals. In order to better at what we do, we will need ongoing professional development so that we can make significant contributions to the school community. This has to be a priority for the school." The observed realities were markedly different. In fact, the post-teaching practicum results were more in tune with the reality that once teachers achieve professional certification, their effectiveness as classroom practitioners to improve teaching and learning is not necessarily subjected to vigorous scrutiny (Pajak & Green, 2003). It is interesting that the youngest (22–29 years of age) and the p/j cohorts had higher expectations than the 40+ and i/s cohorts, respectively, in this area. The former cohorts more readily recognized the formal training and licensing requirements associated with being a professional. These participants extended such professional standards into the workplace and expected similar attitudinal attributes to be nurtured by the professional community of educators. It is less surprising that the i/s cohort had lower expectations of professional development as a priority in schools than their p/j colleagues since the research about

secondary schools concludes that their larger size potentially inhibits formal organizational connections and cohesive school climates across the board (Lee, Smerdon, Alfeld-Liro, & Brown, 2000; Lee et al., 1993).

The 22–29 cohort noted consistently throughout their postpracticum reflections that the collegial nature of schools as professional communities varied tremendously and were predominantly represented by exchanges of personal favors to fulfill administrative and bureaucratic tasks. Professional development and collegial and collective action (as discussed in Aldrich & Roef, 2006), marked by a clear focus on teaching and learning, was scarcely reported. The successes of individual classrooms rarely, according to participants, extended into the school community at large, as they would in thriving professional school communities (Cunningham & Cordeiro, 2006). Systemic processes to identify improvements in teaching and learning and conceptualizing plans to address these (Cunningham & Gresso, 1993; Sarason, 1996) were sporadically distinguished by participants in the postsurvey reflections.

More distinguishable, then, were the interests of individual teachers and distinct departments or divisions in furthering their self-serving positions in the school community. While professional collaboration, even in these smaller units, was often described as informal conversation about students and school programming, communitywide agendas to further student achievement were perceived more as competing rather than complementary forces (Razik & Swanson, 2001). Although participants were sensitive to the unique components of schools as professional communities, including the respective routines, expectations, and vision to name a few (Fiol, 1991), their perceptions of these communities of inquiry were more characteristic of fragmented and incoherent dialogues often far removed from the issues that most profoundly implicated teaching and learning. Their collective postpracticum views summoned the characteristics of a loose-coupling school community model (Gamoran, Secada, & Marrett, 2000) where teaching and learning pedagogy seemed distant from professional collective inquiry driven by student achievement.

This is not to deny participants' sensitivity to the importance of a school vision to sustain communities of inquiry (Cherubini, in press). However, prior to their teaching placements in schools, participants perceived school vision as a product of a socially inclusive and constructed process (Johnson, 2005). Their experience in the various school communities undermined their symbolic understandings. Participants' qualitative responses clearly delineated the conceptual divide between school visions that evolve from collective voices and those that represent the principal's paradigms as they symbolize hierarchy and control. Throughout the postsurvey responses, participants stated their expectations to be able to exercise their professional beliefs and visions but did so in a discourse of conformity. Their entries epitomized a normative assumption that they would be able to cultivate their experiences as novice teachers, but conversely, would have to manifest their educational philosophies in respect to the political and discursive positioning of the hierarchical power structures. They expected to implement their educational ideologies both in their classroom practice and in the larger school community, but they framed this understanding in a discourse of traditional organizational power structures. These expressions suggest an uncritical acceptance of authority and a submissive commitment to what they expect will be a more sophisticated value system. Such a finding is contrary to literature that situates organizational commitment as stemming from the communal construction of an organizational vision that is relevant and meaningful to all staff (Leithwood & Jantzi, 2005; Yu, Leithwood, & Jantzi, 2002).

Of contextual relevance to this research is the fact that new teachers' preliminary stages of professional induction are characteristic of high energy levels and idealistic conceptions of teaching and learning despite the fact that they are obviously low in competence (Blanchard, 1990; Marshall et al., 2004). Also noteworthy to the interpretation of the results are both new teachers' varying degrees of dependency in their preliminary years of practice and the disillusionment they incur during their induction (Achinstein & Villar, 2002). The division between the expectations and perceived realities of collaboration may be especially disadvantageous to new teachers' socialization into professional

communities of inquiry (Chubbuck, Clift, Allard, & Quinlan, 2001; Kelchtermans & Ballet, 2002). Novice teachers prefer to be enculturated into professional and collegial communities that honor their voices (Spindler & Biott, 2000). They expect to serve critical roles in collaborative professional networks where their contributions are valued by colleagues and administrators (Martin & Rippon, 2003). Central to new-teacher development is their identity formations within these support networks and the school community (Rippon & Martin, 2006).

Limitations

The mixed-method design implemented in this research study addressed political legitimation by implementing comprehensive qualitative and quantitative techniques; nevertheless, replications of this scholarly inquiry would further address the reliability of its findings. According to Onwuegbuzie and Johnson (2006), other mixed-methods research designs applied to a similar context could acknowledge sequential and conversion legitimation.

Further, the study's results are not necessarily generalizable beyond the sample from one preservice teacher-education program in an Ontario university. The findings of the study would be strengthened if applied using the same research procedure to other consecutive education students from the various faculties of education situated across the province.

Finally, a minor adjustment in the postpracticum qualitative survey may have resulted in additional useful information. The change, which would be in the second part of the question in order to maintain consistency within the question, would be from one of the following: "Describe examples of how collaboration was embedded in the routines and practices of schools to improve student learning;" "Explain why you believe collaboration was not embedded in the routines and practices of schools to improve student learning;" "If collaboration was not embedded in the routines and practices of the school, explain how it might have been in order to improve student learning."

Summary

The characteristics of schools as professional communities of inquiry to improve teaching and learning that were explored in this research were purposefully selected based on an extensive initial review of the literature. The results of the study underscore a significant phenomena; namely, the distinctive circumstances of student-teacher practicums profoundly impacts upon candidates' perceptions of schools as professional communities of inquiry. In both the qualitative and quantitative postpracticum survey results, participants' perceptions of schools as communities of inquiry dedicated to teaching and improving student learning were significantly lower than their expectations prior to the field placements.

The results of this study reflect teacher-candidates' observations of the professional norms, organizational governance, collective learning, and school conditions that foster professional communities of inquiry. Preservice education professors might note the extent to which student teachers' practicum experiences erode the research-informed perspectives espoused at the faculty of education. It may be equally prudent for school board induction providers to address the organizational realities of the professional school communities into which they are inducting novice teachers.

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Appendix A

Core Categories Grounded in Qualitative Data: Pre- and Postsurveys

- (i) Schools will be organized so that both new and experienced teachers have opportunities to fulfill their own visions and beliefs (presurvey—question 1).
- (ii) Do you expect administrators and teachers (regardless of their years of experience in teaching) to work collaboratively to improve student learning? If not, explain why (presurvey—question 2).
- (iii) Describe examples of how collaboration was embedded in the routines and practices of schools to improve student learning (postsurvey). Or, explain why you believe collaboration was not embedded in the routines and practices of schools to improve student learning (postsurvey).

• 22–29 cohort

Presurvey—question 1:

High expectation that professional autonomy will exist in each school but qualify that personal vision and belief must conform to school and principal paradigms

Presurvey—question 2:

Teachers as integral to faculty team and a vital part of the communication between colleagues, administrators, and students

Postsurvey:

Observed collaboration in schools consisted of managerial routines and resource-sharing

• 30–39 cohort

Presurvey—question 1:

Vision of school administration takes priority over individual beliefs and perceptions Presurvey—question 2:

Collaboration understood as support networks to enable students to achieve and reach their potential

Postsurvey:

Collaboration not an embedded process and resigned to the initiative of individual teachers

• 40+ cohort

Presurvey—question 1:

Cautionary optimism; expected school organization to facilitate their visions but had reservations that this would be the case

Presurvey—question 2:

A distinguished appreciation and expectation for school administrators to take the lead in facilitating opportunities to collaborate

Postsurvey:

Evidence of collaboration limited to colleagues assisting one another with daily management routines

Females

Presurvey—question 1:

An acknowledgment of the ideal and what was expected to be more realistic perspectives Presurvey—question 2:

Collaboration as a continuous conversation and constructive dialogue between teachers, administrators, parents, and students

Postsurvey:

Collaboration as a product of same grade/division/department teachers when it existed

Males

Presurvey—question 1:

A recognition of the importance of fulfilling personal vision, but an expectation that school organization may not allow for it

Presurvey—question 2:

Collaboration as a complex and tenuous process

Postsurvey:

Collaboration as a product of same grade/division/department teachers when it existed

• Intermediate/Senior Qualifications

Presurvey—question 1:

Respect and tolerance for professional autonomy to exist under the condition that they are aligned with principal's vision

Presurvey—question 2:

School organization to facilitate collaboration, but reservations exist regarding the commitment from experienced teachers

Postsurvey:

Endeavors to strengthen authentic student learning not visibly evident

Primary/Junior Qualifications

Presurvey—question 1:

New teachers' visions valuable for the contribution they can make to the school, but significant qualification exists that personal beliefs have to be tightly aligned with principal's vision Presurvey—question 2:

Specific attention to elements of programming to address authentic student learning Postsurvey:

Collaboration perceived as informal and haphazard